

$^{10}\text{B}(\text{}^3\text{He,p})$ 1962Br10,1972A103

Type	Author	History	Citation	Literature Cutoff Date
Full Evaluation	J. H. Kelley, J. E. Purcell and C. G. Sheu		NP A968, 71 (2017)	1-Jan-2017

1964Ku09: $^{10}\text{B}(\text{}^3\text{He,P}\gamma)$ E(^3He)=1.8-5.5 MeV, measured σ .
 1970Bo39: $^{10}\text{B}(\text{}^3\text{He,p})$ E=10,11 MeV, measured $\sigma(E_p,\theta)$. ^{12}C deduced levels, particle branching ratios.
 1972A103: $^{10}\text{B}(\text{}^3\text{He,p})$ E=2.2 MeV, measured $\sigma(E_p,E_\gamma)$. ^{12}C level deduced γ -branching, level-width.
 1972Be05: $^{10}\text{B}(\text{}^3\text{He,p})$ E(X-ray)=25-35 MeV, measured $\sigma(90^\circ)$.
 1972Be56: $^{10}\text{B}(\text{}^3\text{He,p})$ E=30-36 MeV, measured $\sigma(E,E_p)$.
 1974An19: $^{10}\text{B}(\text{}^3\text{He,P}\gamma)$ E=2.2 MeV, measured P- γ -coin. ^{12}C levels deduced P-width, γ -width, S.
 1976Ad03,1977Ad02: $^{10}\text{B}(\text{}^3\text{He,P}\gamma)$ E=4.1 MeV, measured P- γ -coin. ^{12}C resonances deduced Γ_γ , isospin mixing.
 1983Ch08: $^{10}\text{B}(\text{}^3\text{He,p})$ E=15.75 MeV, measured $\sigma(E_p)$, Q.
 1996Mc09: $^{10}\text{B}(\text{}^3\text{He,p})$ E=2-4 MeV, measured $\sigma(E_p,\theta)$.

 ^{12}C Levels

E(level) [†]	J ^{π}	Γ^\dagger	Comments
0	0 ⁺		
4.44×10 ³	2 ⁺		
7655.6	0 ⁺		
9645.6		36 keV 6	
10849 25		320 keV 30	
11841 25		245 keV 30	
12713 6	1 ⁺	≈350 keV	$\Gamma_\gamma/\Gamma=0.025$ 10 Γ : ≈350 keV appears in (1985Aj01), but the value is untraceable.
13.29×10 ³ 3		0.43 MeV 10	Γ : Also see $\Gamma=290$ keV 70 (1966Wa16).
14083 15		252 keV 15	Γ : Also see $\Gamma=320$ keV 50 (1966Wa16).
15108 6	1 ⁺		T=1; $\Gamma_\gamma/\Gamma>0.95$
16108 6	2 ⁺		$\Gamma_\gamma/\Gamma=2.6\times 10^{-3}$ 5 I_γ : From (1977Ad02).
16.58×10 ³			
≈18.5×10 ³			Γ : Broad.
≈19.5×10 ³			Γ : Broad.
20.5×10 ³ 1	3 ⁺		T=1
22.×10 ³			

[†] From (1962Br10) except where noted.

 $\gamma(^{12}\text{C})$

$E_i(\text{level})$	J ^{π} _i	E_γ	I_γ	E_f	J ^{π} _f	Comments
12713	1 ⁺	8273	13.0 16	4.44×10 ³	2 ⁺	
		12713	87.0 16	0	0 ⁺	I_γ : From (1977Ad02), see also (1972A103) who found $I_\gamma(12.1$ $\text{MeV}\rightarrow 0)=(15\ 4)\%$ and $I_\gamma(12.1\ \text{MeV}\rightarrow 4.44\ \text{MeV})=(85\ 4)\%$.
15108	1 ⁺	2395	1.4 4	12713	1 ⁺	
		7452	2.6 7	7655.6	0 ⁺	
		10668	2.3 9	4.44×10 ³	2 ⁺	
		15108	92 2	0	0 ⁺	

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Intensities: % photon branching from each level

